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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,518	10/30/2001	David A. Struyk	O.N. 63539	5666

22110 7590 05/03/2005

SCHROEDER & SIEGFRIED
222 SOUTH NINTH STREET
SUITE 2870
MINNEAPOLIS, MN 55402

EXAMINER

VIEAUX, GARY

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/003,518	STRUYK, DAVID A.	
	Examiner	Art Unit	
	Gary C. Vieaux	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-21 and 23-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-21 and 23-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Amendment

The Amendment filed on February 28, 2005 has been received and made of record. In response to the first office action, Applicant has amended claims 1, 3, 4, 6, 9-
5 11, 18, and 20. Additionally, Applicant has cancelled claims 2 and 22.

Response to Amendment

Claim 18 has been amended to correct an informality in grammar. Therefore, the objection to Claim 18 is withdrawn.

10

Response to Arguments

Applicant's arguments with respect to claims 1, 3-10, 20-21 and 23-26 have been considered but are moot in view of the new ground(s) of rejection. It is further noted that Okamoto et al. is provided to counter Applicant's challenge of Examiner's Official
15 Notice.

Additionally, Applicant's arguments filed on February 28, 2005 regarding claims 1, 3-21 and 23-29 have been fully considered but they are not persuasive.

Regarding claim 1, Applicant contends, Remarks p. 10-15, that Langer (US
20 5,581,930) does not teach or fairly suggest a "relative directional indicator" that functions to determine the orientation of one object relative to the orientation of another. The Examiner respectfully disagrees.

The related section of claim 1 calls for "a relative direction indicator communicatively associated with said image capture device and said image display device for indicating a directional viewing orientation of said image capture device relative to a directional orientation of said image display device".

5 Langer, on lines 42-45 of column 6, clearly discloses that the lure includes a compass for the purpose of determining the direction in which it is pointed. Langer also discloses, on lines 46-49 of column 6, "a corresponding compass provided in the above water portion of the system may be correlated with the lure compass to provide the relative position of the lure with respect to the boat or angler location" (emphasis
10 added.) Langer then goes on to teach that the information from the lure compass and the corresponding above water compass, to which the lure compass is correlated, is displayed on a monitor to indicate the position of the lure relative to the boat (col. 6 lines 49-51.)

Based on the foregoing passages, Langer is found to teach [REDACTED]
15 [REDACTED] a relative direction indicator communicatively associated with said image capture device and said image display device (as displayed on a monitor and based on the correlation of two compass headings; one from the lure compass and another from the corresponding above-water compass) for indicating a directional viewing orientation of said image capture device (as provided by information as to which direction the lure
20 is pointed) relative to a directional orientation of said image display device (as provided by information correlated with respect to the boat/angler.)

Additionally, Applicant provides the analogy that a person may be positioned in a swivel chair due east to another person, but this does not determine the orientation or direction that person is facing relative to the other. The Examiner agrees.

Unfortunately this analogy is incorrectly applied to the teachings of Langer, as it does
5 not properly account for the compass internal to the lure, which if considered, one would find they now have a person who is seated in the swivel chair and is pointed in a particular direction, for example, the person may be pointed North, (as would be indicated by an internal compass determining the direction in which the person is pointed, similar to the internal compass found within the lure which determines the
10 direction in which the lure is pointed), and from which orientation or direction of that person, relative to the direction to another person could be determined.

Applicant also contends that Langer is not an enabling 102 reference. The Examiner respectfully disagrees, and directs the Applicant to MPEP §2121, which states "[w]hen the reference relied on expressly anticipates or makes obvious all of the
15 elements of the claimed invention, the reference is presumed to be operable. Once such a reference is found, the burden is on applicant to provide facts rebutting the presumption of operability. In re Sasse, 629 F.2d 675, 207 USPQ 107 (CCPA 1980). See also MPEP §716.07."

Accordingly, Langer is found to teach [REDACTED]^a relative
20 directional indicator that indicates the directional viewing orientation of an image capture device relative to a directional orientation of an image display device.

Regarding claims 11 and 20, although the wording is different, the material and related arguments are considered substantively equivalent to those of claim 1 as discussed above. Therefore, for the above stated reasons, the Examiner finds that Langer teaches [REDACTED] the subject matter in question.

5 Regarding claims 3-10, 12-19, 21 and 23-29, each depends either directly from or indirectly from independent claim 1, 11 or 20, respectively, and thus inherit all the limitations of the related independent claim. Consequently, based on their dependence and the foregoing response to arguments relating to the associated independent claim, the Examiner finds that Langer teaches [REDACTED] the subject matter in
10 question.

Regarding claim 15, Applicant contends, Remarks p.18, that the Barbour (US 4,855,820) does not teach or fairly suggest a "peripherally" disposed indicator that is rotatable about the "perimeter" of said image display device. The Examiner respectfully disagrees.

15 Barbour is provided for the teaching of a peripherally disposed indicator that is rotatable about the perimeter of an image display device, and is found to provide this teaching. The dot employed to indicate North is both shown (fig. 4 indicator 66) and described (col. 6 lines 30-31) to be off center, which is found to be a location peripheral to the center, as well as rotational about the perimeter of said image display device (col.
20 6 lines 32-41), in which the broad claim language of perimeter is interpreted to be an area that does not include the center of the display, and is found to be taught by Barbour (fig. 4.) Furthermore, After combing the Barbour reference, it also was not

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found to teach away from any given combination as suggested by the Applicant (Remarks, p. 18), and absent any reference or direct showing within the references of such a teaching away, the Examiner respectfully upholds the rejection as it relates to the subject matter in question.

5

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

10 (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15 **Claims 11-13, 16, 19 and 27-28** are rejected under 35 U.S.C. 102(b) as being anticipated by Langer (US 5,581,930.)

Regarding claim 11, Langer teaches a remote viewing apparatus with relative directional indication, comprising an image capture device (figs. 4B and 4C indicator 70; col. 11 lines 36-49), an image display device communicatively associated with said image capture device for receiving and displaying imagery data transmitted from said image capture device (col. 12 lines 36-55), said image capture device being physically connected only to said image display device through a conductive line extending there between (col. 4 lines 51-53), and a relative direction indicator communicatively associated with said image capture device for indicating a viewing direction of said image capture device relative to a known movable directional orientation (col. 6 lines 25 42-54.)

Regarding claim 12, Langer teaches all the limitations of claim 12 (see the 102(b) rejection to claim 11 supra), including wherein said image display device is movable ('930 - col. 12 lines 36-38), and an established directional orientation of said image display device constitutes said known movable directional orientation from which said relative viewing direction of said image capture device is determined ('930 - col. 6 lines 42-54.)

Regarding claim 13, Langer teaches all the limitations of claim 13 (see the 102(b) rejection to claim 11 supra), including wherein an established directional orientation of said image display device determines said known movable directional orientation from which said relative viewing direction of said image capture device is determined ('930 - col. 6 lines 42-54.)

Regarding claim 16, Langer teaches all the limitations of claim 16 (see the 102(b) rejection to claim 11 supra), including wherein said relative direction indicator provides a visible indication of said viewing direction of said image capture device relative to said known movable directional orientation ('930 - col. 6 lines 49-54.)

Regarding claim 19, Langer teaches all the limitations of claim 19 (see the 102(b) rejection to claim 11 supra), including means associated with said image capture device for providing indication of operational information relative to said image capture device ('930 - (col. 5 lines 19-28, col. 12 lines 46-52.)

Regarding claim 27, Langer teaches all the limitations of claim 27 (see the 102(b) rejection to claim 19 supra), including a water pressure sensor located at said image capture device for determining the depth of said image capture device under water ('930

- fig. 1 indicator 15, col. 5 lines 12-18) and displaying the depth on said image display device ('930 - col. 7 lines 3-10.)

Regarding claim 28, Langer teaches all the limitations of claim 28 (see the 102(b) rejection to claim 11 supra), including wherein said image capture device includes a

5 pressure sensor ('930 - fig. 1 indicator 15, col. 5 lines 12-14.)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

10 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
15 negated by the manner in which the invention was made.

Claims 1, 8-10 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langer (US 5,581,930) in view of Moroz (US 2003/0174206 A1.)

Regarding claim 1, Langer discloses a remote viewing apparatus with relative
20 directional indication, comprising an image capture device (figs. 4B and 4C indicator 70; col. 11 lines 36-49), an image display device communicatively associated with said image capture device for receiving and displaying imagery data transmitted from said image capture device (col. 12 lines 36-55), a relative direction indicator communicatively associated with said image capture device and said image display device for indicating
25 a directional viewing orientation of said image capture device relative to a directional orientation of said image display device (col. 6 lines 42-54.) However, Langer is not

found to teach said image capture device being devoid of connection from and construction for independent operation relative to any fishing line.

Nevertheless, Moroz teaches a underwater camera system, which is not a lure, that not only provides information relating to the directional viewing orientation of the underwater camera and relays that directional information to the viewing system, but also includes an image capture device that is devoid of connection from and constructed for independent operation relative to any fishing line (§0026, §0018, fig. 1 indicator 150.) It would have been obvious to one of ordinary skill in the art to combine the teachings of an underwater camera which is not a lure Moroz, with the remote viewing apparatus of Langer, so that a user could observe fishing or underwater conditions outside of fishing season (as using a lure-related device would constitute a violation in many locations), so that a user may observe fishing or underwater conditions around a separate fishing lure or baited line, or so that a user may conduct a photographic fishing trip, similar to that of a photo-safari in which the sportsman only wishes to observe and photograph an animal.

Regarding claim 8, Langer and Moroz teach all the limitations of claim 8 (see the 103(a) rejection to claim 1 supra), including wherein said image display device is movable ('930 - col. 12 lines 36-38; Moroz -§0010.)

Regarding claim 9, Langer and Moroz teach all the limitations of claim 9 (see the 103(a) rejection to claim 1 supra), including wherein said relative direction indicator provides a visible indication of said directional viewing orientation of said image capture

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device relative to said directional orientation of said image display device ('930 - col. 6 lines 46-51.)

Regarding claim 10, Langer and Moroz teach all the limitations of claim 10 (see the 103(a) rejection to claim 1 supra), including means for displaying on said image display device operational information relative to said image capture device other than said directional viewing orientation thereof ('930 - col. 5 lines 19-28, col. 12 lines 46-52.)

Regarding claim 24, Langer and Moroz teach all the limitations of claim 24 (see the 103(a) rejection to claim 10 supra), including teaching wherein the temperature at said image capture device ('930 - col. 5 lines 19-22) is displayed on said image display device ('930 - col. 7 lines 3-10.)

Regarding claim 25, Langer and Moroz teach all the limitations of claim 25 (see the 103(a) rejection to claim 10 supra), including teaching wherein the depth of said image capture device ('930 - col. 5 lines 12-14) is displayed on said image display device ('930 - col. 7 lines 3-10.)

Regarding claim 26, Langer and Moroz teach all the limitations of claim 26 (see the 103(a) rejection to claim 1 supra), including a pressure sensor carried by said image capture device for determining depth of said image capture device ('930 - fig. 1 indicator 15, col. 5 lines 12-18.)

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langer (US #5,581,930) and Moroz (US 2003/0174206 A1), in further view of Barbour (US #4,855,820.)

Regarding claim 3, Langer and Moroz teach all the limitations of claim 3 (see the 103(a) rejection to claim 1 supra), except for explicitly teaching a remote viewing apparatus with relative directional indication wherein said relative direction indicator is constructed and arranged to overlay a graphical representation of said directional orientation of said image capture device within said imagery data being displayed on said image display device. However, Langer does teach overlaying enhancement display options as they relate to the plurality of corresponding sensor signals (col. 12 lines 46-52.)

Barbour teaches a remote viewing apparatus with relative directional indication wherein a relative direction indicator is constructed and arranged to overlay a graphical representation of a directional orientation of an image capture device within imagery data being displayed on an image display device (fig. 4 indicator 66, indicating North on the display; col. 6 lines 3-31.) In light of the teachings in Langer and Barbour, it would have been obvious to one of ordinary skill in the art at the time of the invention to overlay a graphical representation of the directional information on the display of the remote viewing apparatus as a way to visually correlate supplemental information related to the information already provided by the image display, allowing a user to easily associate a viewing direction of a camera with the image being viewed, in relation to the device on which it is being viewed.

Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langer (US #5,581,930) and Moroz (US 2003/0174206 A1), in further view of Okamoto et al. (US 3,935,645.)

Regarding claim 4, Langer and Moroz teach all the limitations of claim 4 (see the 103(a) rejection to claim 1 supra), except for explicitly teaching wherein said relative direction indicator includes means for determining the difference between a viewing direction of said image capture device and said directional orientation of said image display device, and indicating said viewing direction of said image capture device on said image display device based on the difference between said viewing direction of said image capture device and said directional orientation of said display device.

Although Langer does teach indicating a viewing direction of an image capture device on an image display device relative to the viewing direction of the image capture device and a directional orientation of the display device (col. 6 lines 42-54.)

Okamoto discloses an apparatus for indicating the direction operation of a mobile underwater unit, relative to the direction of an above water control station, by means of a determination of the differences between two separate compass headings (fig. 1, col. 3 lines 4-66.) It would have been obvious to one of ordinary skill in the art at the time the invention to combine the teachings of Okamoto within the device as taught by Langer, to determine a relative direction by determination of the differences between two directions in order to indicate a viewing direction of said image capture device on an image display device, relative to the direction of the image display device.

Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langer (US #5,581,930) and Moroz (US 2003/0174206 A1), in further view of Gygax et al. (US #4,482,255.)

Regarding claim 5, Langer and Moroz teach all the limitations of claim 5 (see the 103(a) rejection to claim 1 supra), except for teaching wherein said relative direction indicator includes an electronic compass module mounted on each of said image capture and said image display devices. Although Langer does not teach the use of electronic compass modules, Langer does teach the compass modules being mounted on each of said image capture and said image display devices ('930 - col. 6 lines 42-54.)

Nevertheless, Gygax is found to teach electronic compass modules (col. 3 lines 18-43.) It would have been obvious to one of ordinary skill in the art at the time of the invention to include electronic compasses as taught by Gygax, with the relative direction indicator of the remote viewing apparatus as taught by Langer. One of ordinary skill in the art at the time of invention would have been motivated to make this combination so that directional information could be obtained in an electronic format, which could then be employed to determine a directional orientation of said image capture device relative to a directional orientation of said image display device.

Regarding claim 7, Langer, Moroz, and Gygax teach all the limitations of claim 5 (see the 103(a) rejection to claim 5 supra), including wherein each said electronic compass module includes a pair of orthogonally-mounted compass sensors (col. 3 lines 18-43.)

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langer (US #5,581,930), Moroz (US 2003/0174206 A1), and Gygax et al. (US #4,482,255), in further view of Okamoto et al. (US 3,935,645) and Barbour (US #4,855,820.)

Regarding claim 6, Langer, Moroz and Gygax teach all the limitations of claim 5 (see the 103(a) rejection to claim 5 supra), except for teaching wherein said relative direction indicator calculates the difference between the magnetic heading of said electronic compass module on said image capture device and the magnetic heading of said electronic compass module on said image display device, and displays a graphical representation on said image display device of a viewing direction of said image capture device relative to said directional orientation of said image display device, based on said calculated relative directional difference there between. Although Langer does teach indicating a viewing direction of an image capture device on an image display device relative to the viewing direction of the image capture device and a directional orientation of the display device (col. 6 lines 42-54), as well as overlaying enhancement display options as they relate to the plurality of corresponding sensor signals (col. 12 lines 46-52.)

Okamoto discloses an apparatus for indicating the direction operation of a mobile underwater unit, relative to the direction of an above water control station, by means of a determination of the differences between two separate compass headings (fig. 1, col. 3 lines 4-66.) It would have been obvious to one of ordinary skill in the art at the time the invention to combine the teachings of Okamoto within the device employing electronic compasses modules on the image capture device and on the image display

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device as taught by Langer, Moroz and Gygax, in order to indicate the relative position of the image capture device on the display device as provided for by Langer (col. 6 lines 42-54.)

Further, Barbour provides a teaching of the overlay of a graphical representation
5 onto an image display (fig. 4 indicator 66, indicating North on the display; col. 6 lines 3-31.) It would have been obvious to one of ordinary skill in the art at the time of the invention to combine overlay of a graphical representation of directional information onto the image display device of the remote viewing apparatus as taught by Barbour, to indicate a viewing direction of the image capture device relative to a directional
10 orientation of an image display device, based on the calculated relative directional difference there between as taught by Langer, Moroz, Gygax and Okamoto. One of ordinary skill in the art at the time of the invention would have been motivated to combine these teachings as a way to visually correlate supplemental information related to the information already provided by the image display, allowing a user to easily
15 associate a viewing direction of a camera with the image being viewed, in relation to the device on which it is being viewed.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langer (US #5,581,930) in view of Barbour (US #4,855,820.)

20 Regarding claim 14, Langer teaches all the limitations of claim 14 (see the 102(b) rejection to claim 13 supra), except for explicitly teaching wherein said relative direction indicator is constructed and arranged to display on said image display device an

indicator of said viewing direction of said image capture device relative to said established directional orientation of said image display device. Although Langer does teach indicating a viewing direction of an image capture device on an image display device relative to the viewing direction of the image capture device and a directional orientation of the display device ('930 - col. 6 lines 42-54), as well as overlaying enhancement display options as they relate to the plurality of corresponding sensor signals ('930 - col. 12 lines 46-52.)

Nevertheless, Barbour is found to teach use of an indicator when providing directional orientation in relation to a remote viewing device (fig. 4 indicator 66, indicating North on the display; col. 6 lines 3-31.) In light of the teaching of Barbour, it would have been obvious to one of ordinary skill in the art at the time of the invention for the relative direction indicator to be constructed and arranged to display on an image display device an indicator of a viewing direction of an image capture device relative to the established directional orientation of the image display device of the remote viewing apparatus as taught by Langer. One of ordinary skill in the art at the time of the invention would have been motivated to combine these teachings in order to indicate a viewing direction of said image capture device on an image display device by means of an indicator, relative to the direction of the image display device.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langer (US #5,581,930) in view Barbour (US #4,855,820), further in view of Examiner's Official Notice.

Regarding claim 15, Langer and Barbour teach all the limitations of claim 15 (see the 103(a) rejection to claim 14 supra), except for teaching wherein said viewing direction indicator is composed of a peripherally disposed graphical arrow that is rotatable about the perimeter of said image display device. However, Barbour is found to teach a peripherally disposed indicator that is rotatable about the perimeter of said image display device (fig. 4 indicator 66.)

Official Notice is regarding the use of arrows to indicate direction; a navigational and orienteering concept that is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to employ an arrow as the peripherally disposed viewing direction indicator that is rotatable about the perimeter of said image display device of the remote viewing apparatus as taught by Langer and Barbour, so that the arrow, disposed to avoid visual overlap of the central area of the image being displayed, may be utilized to symbolically indicate a forward facing direction of the camera.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langer (US #5,581,930) in view of Gygax et al. (US #4,482,255.)

Regarding claim 17, Langer teaches all the limitations of claim 17 (see the 102(b) rejection to claim 11 supra), except for teaching wherein said relative direction indicator is comprised of a pair of electronic compass modules, one said compass module being carried by said image capture device, and the other said compass module being carried by said image display device. Although Langer does not teach the use of electronic

compass modules, Langer does teach the compass modules being carried by each of said image capture and image display devices ('930 - col. 6 lines 42-54.)

Nevertheless, Gygax is found to teach electronic compass modules (col. 3 lines 18-43.) It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the electronic compasses modules as taught by Gygax, as the electronic compass modules of the remote viewing apparatus as taught by Langer. One of ordinary skill in the art at the time of invention would have been motivated to make this combination so that directional information could be obtained in an electronic format, which could then be employed to determine a directional orientation of said image capture device relative to a directional orientation of said image display device.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langer (US #5,581,930) in view of Gygax et al. (US #4,482,255), further in view of Okamoto et al. (US 3,935,645.)

Regarding claim 18, Langer and Gygax teach all the limitations of claim 18 (see the 103(a) rejection to claim 17 supra), except teaching wherein said relative direction indicator is constructed and arranged to calculate the difference between the magnetic directional orientation or one compass module relative to the other, for use in determining said viewing direction of said image capture device relative to an established directional orientation of said image display device. Although Langer does teach indicating a viewing direction of an image capture device on an image display device relative to the viewing direction of the image capture device and a directional

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orientation of the display device (col. 6 lines 42-54), as well as overlaying enhancement display options as they relate to the plurality of corresponding sensor signals (col. 12 lines 46-52.)

Okamoto discloses an apparatus for indicating the direction operation of a mobile
5 underwater unit, relative to the direction of an above water control station, by means of a determination of the differences between two separate compass headings (fig. 1, col. 3 lines 4-66.) It would have been obvious to one of ordinary skill in the art at the time of the invention for the relative direction indicator of the remote viewing apparatus as taught by Langer and Gygax, to be constructed and arranged to calculate the difference
10 between the magnetic directional orientation or one compass module relative to the other as taught by Okamoto, in order to indicate a viewing direction of said image capture device on an image display device, relative to an established directional orientation of the image display device, so that a user may readily associate a viewing direction of a camera with the image being viewed, in relation to the device on which it
15 is being viewed.

Claims 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langer (US #5,581,930) in view of Barbour (US #4,855,820), in view of Okamoto et al. (US 3,935,645.)

20 Regarding claim 20, Langer teaches a remote viewing apparatus with relative directional indication, comprising an image capture device (figs. 4B and 4C indicator 70; col. 11 lines 36-49) having a first compass connected thereto (col. 6 lines 42-45), an

image display device communicatively associated with said image capture device and having a second compass connected thereto (col. 6 lines 46-54), said image capture device being physically connected only to said image display device through a conductive line extending there between (col. 4 lines 51-53), a relative direction

5 indicator communicatively associated with said first and second compasses, said relative direction indicator including means for determining and indicating the relative directional difference between the respective headings of said first and second compasses (col. 6 lines 42-54.) However, although Langer is not found to teach said means for indicating the relative directional difference between the respective

10 headings of said first and second compasses being comprised of a peripherally moveable graphical pointer with a contrasting background overlaid on the image display of said image device, said pointer being constructed and arranged to indicate the viewing direction of said image capture device relative to a known directional orientation of said image display device, based on the relative directional difference determined

15 between the respective headings of said first and second compasses, Langer does teach overlaying enhancement display options as they relate to the plurality of corresponding sensor signals (col. 12 lines 46-52.)

Barbour is found to teach a remote viewing apparatus that includes a peripherally movable directional indicator that contrasts with the background of the image display

20 device (fig. 4 indicator 66; col. 6 lines 32-41.) It would have been obvious to one of ordinary skill in the art at the time of the invention to overlay a peripherally movable contrasting directional indicator as taught by Barbour, with the remote viewing

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apparatus as taught by Langer, so that the directional information displayed is easily viewable.

Additionally, Okamoto is found to teach indicating a relative directional difference between respective headings of first and second compasses in which the relative
5 directional difference is determined between the respective headings of first and second compasses and indicates the relative direction of a device (fig. 1, col. 3 lines 4-66), as well as teach the use of pointers to indicate directions (fig. 1.) It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Okamoto's teachings of the pointing indication and determination of relative directional
10 orientation based on directional difference, with the remote viewing apparatus of Langer and Barbour, so that the user can easily view not only the image captured on the display, but also view the image with an indication of the direction the image capture device is pointing relative to the display, as indicated by an overlaid pointer.

Regarding claim 23, Langer, Barbour and Okamoto teach all the limitations of
15 claim 23 (see the 103(a) rejection to claim 20 supra), including teaching a temperature sensor ('930 – col. 5 lines 19-22) and a pressure sensor ('930 – col. 5 lines 12-14) carried by said image capture device ('930 – fig. 1 indicator 15) for determining and displaying the temperature and depth of said image capture device on said image display device ('930 – col. 7 lines 3-10; col. 12 lines 50-52.)

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langer (US #5,581,930) in view of Barbour (US #4,855,820), in view of Okamoto et al. (US 3,935,645), in further view of Gygax et al. (US #4,482,255.)

Regarding claim 21, Langer, Barbour and Okamoto teach all the limitations of claim 23 (see the 103(a) rejection to claim 20 supra), except for teaching wherein said first and second compasses are comprised of electronic compass modules, each of which includes a pair of orthogonally disposed compass sensors. Although Langer does not teach the use of compasses comprised of electronic compass modules or where each includes a pair of orthogonally disposed compass sensors, Langer teaches the compass modules being carried by each of said image capture and image display devices (col. 6 lines 42-54) and Okamoto teaches first and second compass modules to determine the relative position of a device relative to a control.

Nevertheless, Gygax is found to teach electronic compass modules, each of which including a pair of orthogonally disposed compass sensors (col. 3 lines 18-43.) It would have been obvious to one of ordinary skill in the art at the time of the invention to employ electronic compass modules as taught by Gygax, as the electronic compasses of the remote viewing apparatus as taught by Langer, Barbour and Okamoto. One of ordinary skill in the art at the time of invention would have been motivated to make this combination so that directional information could be obtained in an electronic format, which could then be employed to determine a directional orientation of said image capture device relative to a directional orientation of said image display device.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langer (US #5,581,930) in view of Park et al. (US #5,782,033.)

Regarding claim 29, Langer teaches all the limitations of claim 29 (see the 102(b) rejection to claim 11 supra), except for teaching wherein said image display device
5 includes means for displaying global positioning location data. However, Langer does teach that the apparatus may be used to collect data and may be used to correct data; data that may then be analyzed and used to provide probability estimates of preferred fish catching locations and times ('930 - col. 2 lines 54-58.) Langer also teaches overlaying sensor outputs, as well as displaying a plurality of outputs on a single display
10 ('930 - col. 12 lines 36-52.)

Nevertheless, Park is found to teach a fishing device that includes an image display device, sensors of aquatic conditions, and a Global Positioning System (GPS) receiver that determines the geographic coordinates indication where the unit is physically located (col. 2 lines 40-59.) It would have been obvious to one of ordinary
15 skill in the art at the time of invention to combine the teachings of Langer, with the global positioning location data as taught by Park in order to provide for displaying the location where a fish was caught; therefore presenting the potential to return to the same location to catch additional fish at a later time.

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Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2612

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary C. Vieaux whose telephone number is 571-272-7318. The examiner can normally be reached on Monday - Friday, 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 571-272-7308. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Art Unit: 2612

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

- 5 For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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